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tctccaaata	ctgtttcttt	aactcagata	tttttgttag	tgtctaggcc	acttcattta	5100
tttttctgca	tgggtacttta	ctgacttctc	tttattcaat	tctccacgcc	ctcacaaaa	5160
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ttcattctga	cttaaaaaatt	cttccatggt	tttaaatatc	agaaccagac	ctttcttact	5280
gtgtatctta	gcccatttgt	gtctctataa	caacaaccag	ctttcaaagg	aactaataga	5340
gtgaaaactc	actcattacc	acgaggatgg	cacaagcgat	tcacgtagga	tctgcccctg	5400
tgaccaaacc	acctccatt	gggccccact	tccaacactg	gtgatcacat	ttcaacatga	5460
ggtttaggg	aacaaatgcc	taaactacag	cactgtacat	aaactaacag	gaaatgctgc	5520

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 <212> PRT
 <213> Homo sapiens

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 Val Leu Ile Gly Ser Glu His Gly Leu Ile Glu Val Asp Pro Val Ser
 35 40 45
 Arg Glu Val Lys Asn Glu Val Ser Leu Val Ala Glu Gly Phe Leu Pro
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 Glu Asp Gly Ser Gly Arg Ile Val Gly Val Gln Asp Leu Leu Asp Gln
 65 70 75 80
 Glu Ser Val Cys Val Ala Thr Ala Ser Gly Asp Val Ile Leu Cys Ser
 85 90 95
 Leu Ser Thr Gln Gln Leu Glu Cys Val Gly Ser Val Ala Ser Gly Ile
 100 105 110
 Ser Val Met Ser Trp Ser Pro Asp Gln Glu Leu Val Leu Leu Ala Thr
 115 120 125
 Gly Gln Gln Thr Leu Ile Met Met Thr Lys Asp Phe Glu Pro Ile Leu
 130 135 140
 Glu Gln Gln Ile His Gln Asp Asp Phe Gly Glu Ser Lys Phe Ile Thr
 145 150 155 160
 Val Gly Trp Gly Arg Lys Glu Thr Gln Phe His Gly Ser Glu Gly Arg
 165 170 175
 Gln Ala Ala Phe Gln Met Gln Met His Glu Ser Ala Leu Pro Trp Asp
 180 185 190
 Asp His Arg Pro Gln Val Thr Trp Arg Gly Asp Gly Gln Phe Phe Ala
 195 200 205
 Val Ser Val Val Cys Pro Glu Thr Gly Ala Arg Lys Val Arg Val Trp
 210 215 220
 Asn Arg Glu Phe Ala Leu Gln Ser Thr Ser Glu Pro Val Ala Gly Leu
 225 230 235 240
 Gly Pro Ala Leu Ala Trp Lys Pro Ser Gly Ser Leu Ile Ala Ser Thr
 245 250 255
 Gln Asp Lys Pro Asn Gln Gln Asp Ile Val Phe Phe Glu Lys Asn Gly
 260 265 270

Leu Leu His Gly His Phe Thr Leu Pro Phe Leu Lys Asp Glu Val Lys
 275 280 285
 Val Asn Asp Leu Leu Trp Asn Ala Asp Ser Ser Val Leu Ala Val Arg
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 Leu Glu Asp Leu Gln Arg Glu Lys Ser Ser Ile Pro Lys Thr Cys Val
 305 310 315 320
 Gln Leu Trp Thr Val Gly Asn Tyr His Trp Tyr Leu Lys Gln Ser Leu
 325 330 335
 Ser Phe Ser Thr Cys Gly Lys Ser Lys Ile Val Ser Leu Met Trp Asp
 340 345 350
 Pro Val Thr Pro Tyr Arg Leu His Val Leu Cys Gln Gly Trp His Tyr
 355 360 365
 Leu Ala Tyr Asp Trp His Trp Thr Thr Asp Arg Ser Val Gly Asp Asn
 370 375 380
 Ser Ser Asp Leu Ser Asn Val Ala Val Ile Asp Gly Asn Arg Val Leu
 385 390 395 400
 Val Thr Val Phe Arg Gln Thr Val Val Pro Pro Pro Met Cys Thr Tyr
 405 410 415
 Gln Leu Leu Phe Pro His Pro Val Asn Gln Val Thr Phe Leu Ala His
 420 425 430
 Pro Gln Lys Ser Asn Asp Leu Ala Val Leu Asp Ala Ser Asn Gln Ile
 435 440 445
 Ser Val Tyr Lys Cys Gly Asp Cys Pro Ser Ala Asp Pro Thr Val Lys
 450 455 460
 Leu Gly Ala Val Gly Gly Ser Gly Phe Lys Val Cys Leu Arg Thr Pro
 465 470 475 480
 His Leu Glu Lys Arg Tyr Lys Ile Gln Phe Glu Asn Asn Glu Asp Gln
 485 490 495
 Asp Val Asn Pro Leu Lys Leu Gly Leu Leu Thr Trp Ile Glu Glu Asp
 500 505 510
 Val Phe Leu Ala Val Ser His Ser Glu Phe Ser Pro Arg Ser Val Ile
 515 520 525
 His His Leu Thr Ala Ala Ser Ser Glu Met Asp Glu Glu His Gly Gln
 530 535 540
 Leu Asn Val Ser Ser Ser Ala Ala Val Asp Gly Val Ile Ile Ser Leu
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 Cys Cys Asn Ser Lys Thr Lys Ser Val Val Leu Gln Leu Ala Asp Gly
 565 570 575
 Gln Ile Phe Lys Tyr Leu Trp Glu Ser Pro Ser Leu Ala Ile Lys Pro
 580 585 590
 Trp Lys Asn Ser Gly Gly Phe Pro Val Arg Phe Pro Tyr Pro Cys Thr
 595 600 605

Gln Thr Glu Leu Ala Met Ile Gly Glu Glu Glu Cys Val Leu Gly Leu
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 Thr Asp Arg Cys Arg Phe Phe Ile Asn Asp Ile Glu Val Ala Ser Asn
 625 630 635 640
 Ile Thr Ser Phe Ala Val Tyr Asp Glu Phe Leu Leu Leu Thr Thr His
 645 650 655
 Ser His Thr Cys Gln Cys Phe Cys Leu Arg Asp Ala Ser Phe Lys Thr
 660 665 670
 Leu Gln Ala Gly Leu Ser Ser Asn His Val Ser His Gly Glu Val Leu
 675 680 685
 Arg Lys Val Glu Arg Gly Ser Arg Ile Val Thr Val Val Pro Gln Asp
 690 695 700
 Thr Lys Leu Val Leu Gln Met Pro Arg Gly Asn Leu Glu Val Val His
 705 710 715 720
 His Arg Ala Leu Val Leu Ala Gln Ile Arg Lys Trp Leu Asp Lys Leu
 725 730 735
 Met Phe Lys Glu Ala Phe Glu Cys Met Arg Lys Leu Arg Ile Asn Leu
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 Asn Pro Ile Tyr Asp His Asn Pro Lys Val Phe Leu Gly Asn Val Glu
 755 760 765
 Thr Phe Ile Lys Gln Ile Asp Ser Val Asn His Ile Asn Leu Phe Phe
 770 775 780
 Thr Glu Leu Lys Glu Glu Asp Val Thr Lys Thr Met Tyr Pro Ala Pro
 785 790 795 800
 Val Thr Ser Ser Val Tyr Leu Ser Arg Asp Pro Asp Gly Asn Lys Ile
 805 810 815
 Asp Leu Val Cys Asp Ala Met Arg Ala Val Met Glu Ser Ile Asn Pro
 820 825 830
 His Lys Tyr Cys Leu Ser Ile Leu Thr Ser His Val Lys Lys Thr Thr
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 Pro Glu Leu Glu Ile Val Leu Gln Lys Val His Glu Leu Gln Gly Asn
 850 855 860
 Ala Pro Ser Asp Pro Asp Ala Val Ser Ala Glu Glu Ala Leu Lys Tyr
 865 870 875 880
 Leu Leu His Leu Val Asp Val Asn Glu Leu Tyr Asp His Ser Leu Gly
 885 890 895
 Thr Tyr Asp Phe Asp Leu Val Leu Met Val Ala Glu Lys Ser Gln Lys
 900 905 910
 Asp Pro Lys Glu Tyr Leu Pro Phe Leu Asn Thr Leu Lys Lys Met Glu
 915 920 925
 Thr Asn Tyr Gln Arg Phe Thr Ile Asp Lys Tyr Leu Lys Arg Tyr Glu
 930 935 940
 Lys Ala Ile Gly His Leu Ser Lys Cys Gly Pro Glu Tyr Phe Pro Glu

945	950	955	960
Cys Leu Asn Leu Ile Lys Asp Lys Asn Leu Tyr Asn Glu Ala Leu Lys	965	970	975
Leu Tyr Ser Pro Ser Ser Gln Gln Tyr Gln Asp Ile Ser Ile Ala Tyr	980	985	990
Gly Glu His Leu Met Gln Glu His Met Tyr Glu Pro Ala Gly Leu Met	995	1000	1005
Phe Ala Arg Cys Gly Ala His Glu Lys Ala Leu Ser Ala Phe Leu Thr	1010	1015	1020
Cys Gly Asn Trp Lys Gln Ala Leu Cys Val Ala Ala Gln Leu Asn Phe	1025	1030	1035
Thr Lys Asp Gln Leu Val Gly Leu Gly Arg Thr Leu Ala Gly Lys Leu	1045	1050	1055
Val Glu Gln Arg Lys His Ile Asp Ala Ala Met Val Leu Glu Glu Ser	1060	1065	1070
Ala Gln Asp Tyr Glu Glu Ala Val Leu Leu Leu Leu Glu Gly Ala Ala	1075	1080	1085
Trp Glu Glu Ala Leu Arg Leu Val Tyr Lys Tyr Asn Arg Leu Asp Ile	1090	1095	1100
Ile Glu Thr Asn Val Lys Pro Ser Ile Leu Glu Ala Gln Lys Asn Tyr	1105	1110	1115
Met Ala Phe Leu Asp Ser Gln Thr Ala Thr Phe Ser Arg His Lys Lys	1125	1130	1135
Arg Leu Leu Val Val Arg Glu Leu Lys Glu Gln Ala Gln Gln Ala Gly	1140	1145	1150
Leu Asp Asp Glu Val Pro His Gly Gln Glu Ser Asp Leu Phe Ser Glu	1155	1160	1165
Thr Ser Ser Val Val Ser Gly Ser Glu Met Ser Gly Lys Tyr Ser His	1170	1175	1180
Ser Asn Ser Arg Ile Ser Ala Arg Ser Ser Lys Asn Arg Arg Lys Ala	1185	1190	1195
Glu Arg Lys Lys His Ser Leu Lys Glu Gly Ser Pro Leu Glu Asp Leu	1205	1210	1215
Ala Leu Leu Glu Ala Leu Ser Glu Val Val Gln Asn Thr Glu Asn Leu	1220	1225	1230
Lys Asp Glu Val Tyr His Ile Leu Lys Val Leu Phe Leu Phe Glu Phe	1235	1240	1245
Asp Glu Gln Gly Arg Glu Leu Gln Lys Ala Phe Glu Asp Thr Leu Gln	1250	1255	1260
Leu Met Glu Arg Ser Leu Pro Glu Ile Trp Thr Leu Thr Tyr Gln Gln	1265	1270	1275
Asn Ser Ala Thr Pro Val Leu Gly Pro Asn Ser Thr Ala Asn Ser Ile	1285	1290	1295

Met Ala Ser Tyr Gln Gln Gln Lys Thr Ser Val Pro Val Leu Asp Ala
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Glu Leu Phe Ile Pro Pro Lys Ile Asn Arg Arg Thr Gln Trp Lys Leu
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Ser Leu Leu Asp
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<212> PRT
<213> Mus musculus

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35 40 45
Arg Glu Val Lys Thr Glu Ile Ser Leu Val Ala Glu Gly Phe Leu Pro
50 55 60
Glu Asp Gly Ser Gly Cys Ile Val Gly Ile Gln Asp Leu Leu Asp Gln
65 70 75 80
Glu Ser Val Cys Val Ala Thr Ala Ser Gly Asp Val Ile Val Cys Asn
85 90 95
Leu Ser Thr Gln Gln Leu Glu Cys Val Gly Ser Val Ala Ser Gly Ile
100 105 110
Ser Val Met Ser Trp Ser Pro Asp Gln Glu Leu Leu Leu Leu Ala Thr
115 120 125
Ala Gln Gln Thr Leu Ile Met Met Thr Lys Asp Phe Glu Val Ile Ala
130 135 140
Glu Glu Gln Ile His Gln Asp Asp Phe Gly Glu Gly Lys Phe Val Thr
145 150 155 160
Val Gly Trp Gly Ser Lys Gln Thr Gln Phe His Gly Ser Glu Gly Arg
165 170 175
Pro Thr Ala Phe Pro Val Gln Leu Pro Glu Asn Ala Leu Pro Trp Asp
180 185 190
Asp Arg Arg Pro His Ile Thr Trp Arg Gly Asp Gly Gln Tyr Phe Ala
195 200 205
Val Ser Val Val Cys Arg Gln Thr Glu Ala Arg Lys Ile Arg Val Trp
210 215 220
Asn Arg Glu Phe Ala Leu Gln Ser Thr Ser Glu Ser Val Pro Gly Leu
225 230 235 240
Gly Pro Ala Leu Ala Trp Lys Pro Ser Gly Ser Leu Ile Ala Ser Thr
245 250 255

Gln Asp Lys Pro Asn Gln Gln Asp Val Val Phe Phe Glu Lys Asn Gly
 260 265 270
 Leu Leu His Gly His Phe Thr Leu Pro Phe Leu Lys Asp Glu Val Lys
 275 280 285
 Val Asn Asp Leu Leu Trp Asn Ala Asp Ser Ser Val Leu Ala Ile Trp
 290 295 300
 Leu Glu Asp Leu Pro Lys Glu Asp Ser Ser Thr Leu Lys Ser Tyr Val
 305 310 315 320
 Gln Leu Trp Thr Val Gly Asn Tyr His Trp Tyr Leu Lys Gln Ser Leu
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 Pro Phe Ser Thr Thr Gly Lys Asn Gln Ile Val Ser Leu Leu Trp Asp
 340 345 350
 Pro Val Thr Pro Cys Arg Leu His Val Leu Cys Thr Gly Trp Arg Tyr
 355 360 365
 Leu Cys Cys Asp Trp His Trp Thr Thr Asp Arg Ser Ser Gly Asn Ser
 370 375 380
 Ala Asn Asp Leu Ala Asn Val Ala Val Ile Asp Gly Asn Arg Val Leu
 385 390 395 400
 Val Thr Val Phe Arg Gln Thr Val Val Pro Pro Pro Met Cys Thr Tyr
 405 410 415
 Arg Leu Leu Ile Pro His Pro Val Asn Gln Val Ile Phe Ser Ala His
 420 425 430
 Leu Gly Asn Asp Leu Ala Val Leu Asp Ala Ser Asn Gln Ile Ser Val
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 Tyr Lys Cys Gly Asp Lys Pro Asn Met Asp Ser Thr Val Lys Leu Gly
 450 455 460
 Ala Val Gly Gly Asn Gly Phe Lys Val Pro Leu Thr Thr Pro His Leu
 465 470 475 480
 Glu Lys Arg Tyr Ser Ile Gln Phe Gly Asn Asn Glu Glu Glu Glu Glu
 485 490 495
 Glu Asp Phe Ala Leu Gln Leu Ser Phe Leu Thr Trp Val Glu Asp Asp
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 Thr Phe Leu Ala Ile Ser Tyr Ser His Ser Ser Ser Gln Ser Ile Ile
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 His His Leu Thr Val Thr His Ser Glu Val Asp Glu Glu Gln Gly Gln
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 Leu Asp Val Ser Ser Ser Val Thr Val Asp Gly Val Val Ile Gly Leu
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 Cys Cys Cys Ser Lys Thr Lys Ser Leu Ala Val Gln Leu Ala Asp Gly
 565 570 575
 Gln Val Leu Lys Ile Leu Trp Glu Ser Pro Ser Leu Ala Val Glu Pro
 580 585 590

Trp Lys Asn Ser Glu Gly Ile Pro Val Arg Phe Val His Pro Cys Thr
 595 600 605
 Gln Met Glu Val Ala Thr Ile Gly Gly Glu Glu Cys Val Leu Gly Leu
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 Thr Asp Arg Cys Arg Phe Phe Ile Leu Val Thr Glu Val Ala Ser Asn
 625 630 635 640
 Ile Thr Ser Phe Ala Val Cys Asp Asp Phe Leu Leu Val Thr Thr His
 645 650 655
 Ser His Thr Cys Gln Gly Phe Ser Leu Ser Gly Ala Ser Leu Lys Met
 660 665 670
 Leu Gln Ala Ala Leu Ser Gly Ser His Glu Ala Ser Gly Glu Ile Leu
 675 680 685
 Arg Lys Val Val Trp Gly Ser Arg Ile Val Thr Val Val Pro Gln Asp
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 Met Phe Lys Glu Ala Phe Glu Cys Met Arg Lys Leu Arg Ile Asn Leu
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 755 760 765
 Thr Phe Val Phe Gln Ile Asp Ser Val Asn His Ile Asn Leu Phe Phe
 770 775 780
 Thr Glu Leu Arg Glu Glu Asp Val Thr Lys Thr Met Tyr Pro Pro Pro
 785 790 795 800
 Ile Thr Lys Ser Val Gln Val Ser Thr His Pro Asp Gly Lys Lys Leu
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 Asp Leu Ile Cys Asp Ala Met Arg Ala Ala Met Glu Ala Ile Asn Pro
 820 825 830
 Arg Lys Phe Cys Leu Ser Ile Leu Thr Ser His Val Lys Lys Thr Thr
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 Pro Glu Leu Glu Ile Val Leu Gln Lys Val Gln Glu Leu Gln Gly Asn
 850 855 860
 Leu Pro Phe Asp Pro Glu Ser Val Ser Val Glu Glu Ala Leu Lys Tyr
 865 870 875 880
 Leu Leu Leu Leu Val Asp Val Asn Glu Leu Phe Asn His Ser Leu Gly
 885 890 895
 Thr Tyr Asp Phe Asn Leu Val Leu Met Val Ala Glu Lys Ser Gln Lys
 900 905 910
 Asp Pro Lys Glu Tyr Leu Pro Phe Leu Asn Thr Leu Lys Lys Met Glu
 915 920 925
 Thr Asn Tyr Gln Arg Phe Thr Ile Asp Lys Tyr Leu Lys Arg Tyr Glu

930	935	940
Lys Ala Leu Gly His 945	Leu Ser Lys Cys Gly 950	Pro Glu Tyr Phe Thr Glu 955 960
Cys Leu Asn Leu Ile 965	Lys Asp Lys Asn Leu 970	Tyr Lys Glu Ala Leu Lys 975
Leu Tyr Arg Pro 980	Asp Ser Pro Gln Tyr 985	Gln Ala Val Ser Met Ala Tyr 990
Gly Glu His 995	Leu Met Gln Glu His 1000	Leu Tyr Glu Pro Ala Gly Leu Val 1005
Phe Ala Arg Cys Gly 1010	Ala Gln Glu Lys Ala 1015	Leu Glu Ala Phe Leu Ala 1020
Cys Gly Ser Trp Gln 1025	Gln Ala Leu Cys Val 1030 1035	Ala Ala Gln Leu Gln Met 1040
Ser Lys Asp Lys Val 1045	Ala Gly Leu Ala Arg 1050	Thr Leu Ala Gly Lys Leu 1055
Val Glu Gln Arg 1060	Lys His Ser Glu Ala 1065	Ala Thr Val Leu Glu Gln Tyr 1070
Ala Gln Asp Tyr Glu 1075	Glu Ala Val Leu Leu 1080	Leu Leu Glu Gly Ser Ala 1085
Trp Glu Glu Ala Leu 1090	Arg Leu Val Tyr Lys 1095	Tyr Tyr Asp Arg Val Asp Ile 1100
Ile Glu Thr Ser Ile 1105	Lys Pro Ser Ile Leu 1110 1115	Glu Ala Gln Lys Asn Tyr 1120
Met Asp Phe Leu Asp 1125	Ser Glu Thr Ala Thr 1130	Phe Ile Arg His Lys Asn 1135
Arg Leu Gln Val Val 1140	Arg Ala Leu Arg Arg 1145	Gln Ala Pro Gln Val His 1150
Val Asp His Glu Val 1155	Ala His Gly Pro Glu 1160	Ser Asp Leu Phe Ser Glu 1165
Thr Ser Ser Ile Met 1170	Ser Gly Ser Glu Met 1175	Ser Gly Arg Tyr Ser His 1180
Ser Asn Ser Arg Ile 1185	Ser Ala Arg Ser Ser 1190 1195	Lys Asn Arg Arg Lys Ala 1200
Glu Arg Lys Lys His 1205	Ser Leu Lys Glu Gly 1210	Ser Pro Leu Glu Gly Leu 1215
Ala Leu Leu Glu Ala 1220	Leu Ser Glu Val Val 1225	Gln Ser Val Glu Lys Leu 1230
Lys Asp Glu Val Arg 1235	Ala Ile Leu Lys Val 1240	Leu Phe Leu Phe Glu Phe 1245
Glu Glu Gln Ala Lys 1250	Glu Leu Gln Arg Ala 1255	Phe Glu Ser Thr Leu Gln 1260
Leu Met Glu Arg Ala 1265	Val Pro Glu Ile Trp 1270	Thr Pro Ala Gly Gln Gln 1275 1280

Ser Ser Thr Thr Pro Val Leu Gly Pro Ser Ser Thr Ala Asn Ser Ile
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Thr Ala Ser Tyr Gln Gln Gln Lys Thr Cys Val Pro Ala Leu Asp Ala
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Gly Val Tyr Met Pro Pro Lys Met Asp Pro Arg Ser Gln Trp Lys Leu
1315 1320 1325
Ser Leu Leu Glu
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<212> PRT
<213> Homo sapiens

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Val Leu Ile Gly Ser Glu His Gly Leu Ile Glu Val Asp Pro Val Ser
35 40 45
Arg Glu Val Lys Asn Glu Val Ser Leu Val Ala Glu Gly Phe Leu Pro
50 55 60
Glu Asp Gly Ser Gly Arg Ile Val Gly Val Gln Asp Leu Leu Asp Gln
65 70 75 80
Glu Ser Val Cys Val Ala Thr Ala Ser Gly Asp Val Ile Leu Cys Ser
85 90 95
Leu Ser Thr Gln Gln Leu Glu Cys Val Gly Ser Val Ala Ser Gly Ile
100 105 110
Ser Val Met Ser Trp Ser Pro Asp Gln Glu Leu Val Leu Leu Ala Thr
115 120 125
Gly Gln Gln Thr Leu Ile Met Met Thr Lys Asp Phe Glu Pro Ile Leu
130 135 140
Glu Gln Gln Ile His Gln Asp Asp Phe Gly Glu Ser Lys Phe Ile Thr
145 150 155 160
Val Gly Trp Gly Arg Lys Glu Thr Gln Phe His Gly Ser Glu Gly Arg
165 170 175
Gln Ala Ala Phe Gln Met Gln Met His Glu Ser Ala Leu Pro Trp Asp
180 185 190
Asp His Arg Pro Gln Val Thr Trp Arg Gly Asp Gly Gln Phe Phe Ala
195 200 205
Val Ser Val Val Cys Pro Glu Thr Gly Ala Arg Lys Val Arg Val Trp
210 215 220
Asn Arg Glu Phe Ala Leu Gln Ser Thr Ser Glu Pro Val Ala Gly Leu
225 230 235 240

Gly Pro Ala Leu Ala Trp Lys Pro Ser Gly Ser Leu Ile Ala Ser Thr
 245 250 255
 Gln Asp Lys Pro Asn Gln Gln Asp Ile Val Phe Phe Glu Lys Asn Gly
 260 265 270
 Leu Leu His Gly His Phe Thr Leu Pro Phe Leu Lys Asp Glu Val Lys
 275 280 285
 Val Asn Asp Leu Leu Trp Asn Ala Asp Ser Ser Val Leu Ala Val Trp
 290 295 300
 Leu Glu Asp Leu Gln Arg Glu Glu Ser Ser Ile Pro Lys Thr Cys Val
 305 310 315 320
 Gln Leu Trp Thr Val Gly Asn Tyr His Trp Tyr Leu Lys Gln Ser Leu
 325 330 335
 Ser Phe Ser Thr Cys Gly Lys Ser Lys Ile Val Ser Leu Met Trp Asp
 340 345 350
 Pro Val Thr Pro Tyr Arg Leu His Val Leu Cys Gln Gly Trp His Tyr
 355 360 365
 Leu Ala Tyr Asp Trp His Trp Thr Thr Asp Arg Ser Val Gly Asp Asn
 370 375 380
 Ser Ser Asp Leu Ser Asn Val Ala Val Ile Asp Gly Asn Arg Val Leu
 385 390 395 400
 Val Thr Val Phe Arg Gln Thr Val Val Pro Pro Pro Met Cys Thr Tyr
 405 410 415
 Gln Leu Leu Phe Pro His Pro Val Asn Gln Val Thr Phe Leu Ala His
 420 425 430
 Pro Gln Lys Ser Asn Asp Leu Ala Val Leu Asp Ala Ser Asn Gln Ile
 435 440 445
 Ser Val Tyr Lys Cys Gly Asp Cys Pro Ser Ala Asp Pro Thr Val Lys
 450 455 460
 Leu Gly Ala Val Gly Gly Ser Gly Phe Lys Val Cys Leu Arg Thr Pro
 465 470 475 480
 His Leu Glu Lys Arg Tyr Lys Ile Gln Phe Glu Asn Asn Glu Asp Gln
 485 490 495
 Asp Val Asn Pro Leu Lys Leu Gly Leu Leu Thr Trp Ile Glu Glu Asp
 500 505 510
 Val Phe Leu Ala Val Ser His Ser Glu Phe Ser Pro Arg Ser Val Ile
 515 520 525
 His His Leu Thr Ala Ala Ser Ser Glu Met Asp Glu Glu His Gly Gln
 530 535 540
 Leu Asn Val Ser Ser Ser Ala Ala Val Asp Gly Val Ile Ile Ser Leu
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 Cys Cys Asn Ser Lys Thr Lys Ser Val Val Leu Gln Leu Ala Asp Gly
 565 570 575
 Gln Ile Phe Lys Tyr Leu Trp Glu Ser Pro Ser Leu Ala Ile Lys Pro

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Trp	Lys	Asn	Ser	Gly	Gly	Phe	Pro	Val	Arg	Phe	Pro	Tyr	Pro	Cys	Thr
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Gln	Thr	Glu	Leu	Ala	Met	Ile	Gly	Glu	Glu	Glu	Cys	Val	Leu	Gly	Leu
	610					615					620				
Thr	Asp	Arg	Cys	Arg	Phe	Phe	Ile	Asn	Asp	Ile	Glu	Val	Ala	Ser	Asn
	625					630					635				640
Ile	Thr	Ser	Phe	Ala	Val	Tyr	Asp	Glu	Phe	Leu	Leu	Leu	Thr	Thr	His
				645					650					655	
Ser	His	Thr	Cys	Gln	Cys	Phe	Cys	Leu	Arg	Asp	Ala	Ser	Phe	Lys	Thr
			660					665					670		
Leu	Gln	Ala	Gly	Leu	Ser	Ser	Asn	His	Val	Ser	His	Gly	Glu	Val	Leu
		675					680					685			
Arg	Lys	Val	Glu	Arg	Gly	Ser	Arg	Ile	Val	Thr	Val	Val	Pro	Gln	Asp
	690					695					700				
Thr	Lys	Leu	Val	Leu	Gln	Met	Pro	Arg	Gly	Asn	Leu	Glu	Val	Val	His
	705					710					715				720
His	Arg	Ala	Leu	Val	Leu	Ala	Gln	Ile	Arg	Lys	Trp	Leu	Asp	Lys	Leu
			725						730					735	
Met	Phe	Lys	Glu	Ala	Phe	Glu	Cys	Met	Arg	Lys	Leu	Arg	Ile	Asn	Leu
			740					745					750		
Asn	Leu	Ile	Tyr	Asp	His	Asn	Pro	Lys	Val	Phe	Leu	Gly	Asn	Val	Glu
		755					760					765			
Thr	Phe	Ile	Lys	Gln	Ile	Asp	Ser	Val	Asn	His	Ile	Asn	Leu	Phe	Phe
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Thr	Glu	Leu	Lys	Glu	Glu	Asp	Val	Thr	Lys	Thr	Met	Tyr	Pro	Ala	Pro
	785					790					795				800
Val	Thr	Ser	Ser	Val	Tyr	Leu	Ser	Arg	Asp	Pro	Asp	Gly	Asn	Lys	Ile
				805					810					815	
Asp	Leu	Val	Cys	Asp	Ala	Met	Arg	Ala	Val	Met	Glu	Ser	Ile	Asn	Pro
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His	Lys	Tyr	Cys	Leu	Ser	Ile	Leu	Thr	Ser	His	Val	Lys	Lys	Thr	Thr
		835					840					845			
Pro	Glu	Leu	Glu	Ile	Val	Leu	Gln	Lys	Val	His	Glu	Leu	Gln	Gly	Asn
	850					855					860				
Ala	Pro	Ser	Asp	Pro	Asp	Ala	Val	Ser	Ala	Glu	Glu	Ala	Leu	Lys	Tyr
	865					870					875				880
Leu	Leu	His	Leu	Val	Asp	Val	Asn	Glu	Leu	Tyr	Asp	His	Ser	Leu	Gly
			885					890						895	
Thr	Tyr	Asp	Phe	Asp	Leu	Val	Leu	Met	Val	Ala	Glu	Lys	Ser	Gln	Lys
			900					905					910		
Asp	Pro	Lys	Glu	Tyr	Leu	Pro	Phe	Leu	Asn	Thr	Leu	Lys	Lys	Met	Glu
		915					920					925			

Thr Asn Tyr Gln Arg Phe Thr Ile Asp Lys Tyr Leu Lys Arg Tyr Glu
 930 935 940
 Lys Ala Ile Gly His Leu Ser Lys Cys Gly Pro Glu Tyr Phe Pro Glu
 945 950 955 960
 Cys Leu Asn Leu Ile Lys Asp Lys Asn Leu Tyr Asn Glu Ala Leu Lys
 965 970 975
 Leu Tyr Ser Pro Ser Ser Gln Gln Tyr Gln Asp Ile Ser Ile Ala Tyr
 980 985 990
 Gly Glu His Leu Met Gln Glu His Met Tyr Glu Pro Ala Gly Leu Met
 995 1000 1005
 Phe Ala Arg Cys Gly Ala His Glu Lys Ala Leu Ser Ala Phe Leu Thr
 1010 1015 1020
 Cys Gly Asn Trp Lys Gln Ala Leu Cys Val Ala Ala Gln Leu Asn Phe
 1025 1030 1035 1040
 Thr Lys Asp Gln Leu Val Gly Leu Gly Arg Thr Leu Ala Gly Lys Leu
 1045 1050 1055
 Val Glu Gln Arg Lys His Ile Asp Ala Ala Met Val Leu Glu Glu Ser
 1060 1065 1070
 Ala Gln Asp Tyr Glu Glu Ala Val Leu Leu Leu Glu Gly Ala Ala
 1075 1080 1085
 Trp Glu Glu Ala Leu Arg Leu Val Tyr Lys Tyr Asn Arg Leu Asp Ile
 1090 1095 1100
 Ile Glu Thr Asn Val Lys Pro Ser Ile Leu Glu Ala Gln Lys Asn Tyr
 1105 1110 1115 1120
 Met Ala Phe Leu Asp Ser Gln Thr Ala Thr Phe Ser Arg His Lys Lys
 1125 1130 1135
 Arg Leu Leu Val Val Arg Glu Leu Lys Glu Gln Ala Gln Gln Ala Gly
 1140 1145 1150
 Leu Asp Asp Glu Val Pro His Gly Gln Glu Ser Asp Leu Phe Ser Glu
 1155 1160 1165
 Thr Ser Ser Val Val Ser Gly Ser Glu Met Ser Gly Lys Tyr Ser His
 1170 1175 1180
 Ser Asn Ser Arg Ile Ser Ala Arg Ser Ser Lys Asn Arg Arg Lys Ala
 1185 1190 1195 1200
 Glu Arg Lys Lys His Ser Leu Lys Glu Gly Ser Pro Leu Glu Asp Leu
 1205 1210 1215
 Ala Leu Leu Glu Ala Leu Ser Glu Val Val Gln Asn Thr Glu Asn Leu
 1220 1225 1230
 Lys Asp Glu Val Tyr His Ile Leu Lys Val Leu Phe Leu Phe Glu Phe
 1235 1240 1245
 Asp Glu Gln Gly Arg Glu Leu Gln Lys Ala Phe Glu Asp Thr Leu Gln
 1250 1255 1260

Leu Met Glu Arg Ser Leu Pro Glu Ile Trp Thr Leu Thr Tyr Gln Gln
 1265 1270 1275 1280
 Asn Ser Ala Thr Pro Val Leu Gly Pro Asn Ser Thr Ala Asn Ser Ile
 1285 1290 1295
 Met Ala Ser Tyr Gln Gln Gln Lys Thr Ser Val Pro Val Leu Asp Ala
 1300 1305 1310
 Glu Leu Phe Ile Pro Pro Lys Ile Asn Arg Arg Thr Gln Trp Lys Leu
 1315 1320 1325
 Ser Leu Leu Asp
 1330

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 <211> 1213
 <212> PRT
 <213> *Drosophila melanogaster*

<400> 6
 Met Arg Asn Leu Lys Leu Arg Tyr Cys Lys Glu Leu Asn Ala Val Ala
 1 5 10 15
 His Pro Gln His Leu Leu Leu Gln Pro Glu Leu Asn Gly Gly Ala Ser
 20 25 30
 Asp Ile Tyr Phe Val Val Ala Asp Asn Lys Thr Tyr Ala Val Gln Glu
 35 40 45
 Ser Gly Asp Val Arg Leu Lys Val Ile Ala Asp Leu Pro Asp Ile Val
 50 55 60
 Gly Val Glu Phe Leu Gln Leu Asp Asn Ala Ile Cys Val Ala Ser Gly
 65 70 75 80
 Ala Gly Glu Val Ile Leu Val Asp Pro Gln Thr Gly Ala Thr Ser Glu
 85 90 95
 Gly Thr Phe Cys Asp Val Gly Ile Glu Ser Met Ala Trp Ser Pro Asn
 100 105 110
 Gln Glu Val Val Ala Phe Val Thr Arg Thr His Asn Val Val Leu Met
 115 120 125
 Thr Ser Thr Phe Asp Val Ile Ala Glu Gln Pro Leu Asp Ala Glu Leu
 130 135 140
 Asp Pro Asp Gln Gln Phe Val Asn Val Gly Trp Gly Lys Lys Glu Thr
 145 150 155 160
 Gln Phe His Gly Ser Glu Gly Lys Gln Ala Ala Lys Gln Lys Glu Ser
 165 170 175
 Asp Ser Thr Phe Thr Arg Asp Glu Gln Glu Leu Asn Gln Asp Val Ser
 180 185 190
 Ile Ser Trp Arg Gly Asp Gly Glu Phe Phe Val Val Ser Tyr Val Ala
 195 200 205
 Ala Gln Leu Gly Arg Thr Phe Lys Val Tyr Asp Ser Glu Gly Lys Leu
 210 215 220
 Asn His Thr Ala Glu Lys Ser Ala Asn Leu Lys Asp Ser Val Val Trp

225		230		235		240									
Arg	Pro	Thr	Gly	Asn 245	Trp	Ile	Ala	Val	Pro 250	Gln	Gln	Phe	Pro	Asn 255	Lys
Ser	Thr	Ile	Ala 260	Leu	Phe	Glu	Lys	Asn 265	Gly	Leu	Arg	His	Arg 270	Glu	Leu
Val	Leu	Pro 275	Phe	Asp	Leu	Gln	Glu 280	Glu	Pro	Val	Val	Gln 285	Leu	Arg	Trp
Ser	Glu 290	Asp	Ser	Asp	Ile	Leu 295	Ala	Ile	Arg	Thr	Cys 300	Ala	Lys	Glu	Glu
Gln 305	Arg	Val	Tyr	Leu	Tyr 310	Thr	Ile	Gly	Asn	Tyr 315	His	Trp	Tyr	Leu	Lys 320
Gln	Val	Leu	Ile	Phe 325	Glu	Gln	Ala	Asp	Pro 330	Leu	Ala	Leu	Leu	His 335	Trp
Asp	Thr	Arg	Cys 340	Gly	Ala	Glu	His	Thr 345	Leu	His	Val	Leu	Lys 350	Glu	Ser
Gly	Lys	His 355	Leu	Val	Tyr	Arg	Trp 360	Ala	Phe	Ala	Val	Asp 365	Arg	Asn	Asn
Ser	Ile 370	Val	Gly	Val	Ile	Asp 375	Gly	Lys	Arg	Leu	Leu 380	Leu	Thr	Asp	Phe
Asp 385	Glu	Ala	Ile	Val	Pro 390	Pro	Pro	Met	Ser	Lys 395	Glu	Leu	Gln	Lys	Pro 400
Ile	Met	Leu	Met	Pro 405	Asp	Ala	Glu	Leu	Ser 410	Gly	Leu	His	Leu	Ala 415	Asn
Leu	Thr	His	Phe 420	Ser	Pro	His	Tyr	Leu 425	Leu	Ala	Thr	His	Ser 430	Ser	Ala
Gly	Ser	Thr 435	Arg	Leu	Leu	Leu	Leu 440	Ser	Tyr	Lys	Asp	Asn 445	Asp	Asn	Lys
Pro	Gly 450	Glu	Trp	Phe	Tyr	Arg 455	Val	His	Ser	Ser	Val 460	Arg	Ile	Asn	Gly
Leu 465	Val	Asn	Ala	Val	Ala 470	Val	Ala	Pro	Tyr	Ala 475	Met	Asn	Glu	Phe	Tyr 480
Val	Gln	Thr	Val	Asn 485	Asn	Gly	His	Thr	Tyr 490	Glu	Val	Ser	Leu	Lys 495	Ala
Asp	Lys	Thr	Leu 500	Lys	Val	Glu	Arg	Ser 505	Tyr	Val	Gln	Leu	His 510	Glu	Pro
Ala	Asp	Gln 515	Ile	Asp	Trp	Val	Ile 520	Val	Lys	Gly	Cys	Ile 525	Trp	Asp	Gly
Tyr	Thr 530	Gly	Ala	Leu	Val	Thr 535	Leu	Arg	Asn	Gln	His 540	Leu	Leu	His	Ile
Asp 545	Gly	Tyr	Arg	Ile	Gly 550	Glu	Asp	Val	Thr	Ser 555	Phe	Cys	Val	Val	Thr 560
Asn	Tyr	Leu	Val	Tyr 565	Thr	Gln	Leu	Asn	Ala 570	Met	His	Phe	Val	Gln 575	Leu

Asp Asp Arg Arg Gln Val Ala Ser Arg Asn Ile Glu Arg Gly Ala Lys
 580 585 590
 Ile Val Thr Ala Val Ala Arg Lys Ala Arg Val Val Leu Gln Leu Pro
 595 600 605
 Arg Gly Asn Leu Glu Ala Ile Cys Pro Arg Val Leu Val Leu Glu Leu
 610 615 620
 Val Gly Asp Leu Leu Glu Arg Gly Lys Tyr Gln Lys Ala Ile Glu Met
 625 630 635 640
 Ser Arg Lys Gln Arg Ile Asn Leu Asn Ile Ile Phe Asp His Asp Val
 645 650
 Lys Arg Phe Val Ser Ser Val Gly Ala Phe Leu Asn Asp Ile Asn Glu
 660 665 670
 Pro Gln Trp Leu Cys Leu Phe Leu Ser Glu Leu Gln Asn Glu Asp Phe
 675 680 685
 Thr Lys Gly Met Tyr Ser Ser Asn Tyr Asp Ala Ser Lys Gln Thr Tyr
 690 695 700
 Pro Ser Asp Tyr Arg Val Asp Gln Lys Val Phe Tyr Val Cys Arg Leu
 705 710 715 720
 Leu Glu Gln Gln Met Asn Arg Phe Val Ser Arg Phe Arg Leu Pro Leu
 725 730 735
 Ile Thr Ala Tyr Val Lys Leu Gly Cys Leu Glu Met Ala Leu Gln Val
 740 745
 Ile Trp Lys Glu Gln Gln Glu Asp Ala Ser Leu Ala Asp Gln Leu Leu
 755 760 765
 Gln His Leu Leu Tyr Leu Val Asp Val Asn Asp Leu Tyr Asn Val Ala
 770 775 780
 Leu Gly Thr Tyr Asp Phe Gly Leu Val Leu Phe Val Ala Gln Lys Ser
 785 790 795 800
 Gln Lys Asp Pro Lys Glu Phe Leu Pro Tyr Leu Asn Asp Leu Lys Ala
 805 810 815
 Leu Pro Ile Asp Tyr Arg Lys Phe Arg Ile Asp Asp His Leu Lys Arg
 820 825 830
 Tyr Thr Ser Ala Leu Ser His Leu Ala Ala Cys Gly Glu Gln His Tyr
 835 840 845
 Glu Glu Ala Leu Glu Tyr Ile Arg Lys His Gly Leu Tyr Thr Asp Gly
 850 855 860
 Leu Ala Phe Tyr Arg Glu His Ile Glu Phe Gln Lys Asn Ile Tyr Val
 865 870 875 880
 Ala Tyr Ala Asp His Leu Arg Ala Ile Ala Lys Leu Asp Asn Ala Ser
 885 890 895
 Leu Met Tyr Glu Arg Gly Gly Gln Leu Gln Gln Ala Leu Leu Ser Ala
 900 905 910

Lys His Thr Leu Asp Trp Gln Arg Val Leu Val Leu Ala Lys Lys Leu
 915 920 925
 Ser Glu Pro Leu Asp Gln Val Ala Gln Ser Leu Val Gly Pro Leu Gln
 930 935 940
 Gln Gln Gly Arg His Met Glu Ala Tyr Glu Leu Val Lys Glu His Cys
 945 950 955 960
 Gln Asp Arg Lys Arg Gln Phe Asp Val Leu Leu Glu Gly His Leu Tyr
 965 970 975
 Ser Arg Ala Ile Tyr Glu Ala Gly Leu Glu Asp Asp Asp Val Ser Glu
 980 985 990
 Lys Ile Ala Pro Ala Leu Leu Ala Tyr Gly Val Gln Leu Glu Ser Ser
 995 1000 1005
 Leu Gln Ala Asp Leu Gln Leu Phe Leu Asp Tyr Lys Gln Arg Leu Leu
 1010 1015 1020
 Asp Ile Arg Arg Asn Gln Ala Lys Ser Gly Glu Gly Tyr Ile Asp Thr
 1025 1030 1035 1040
 Asp Val Asn Leu Lys Glu Val Asp Leu Leu Ser Asp Thr Thr Ser Leu
 1045 1050 1055
 His Ser Ser Gln Tyr Ser Gly Thr Ser Arg Arg Thr Gly Lys Thr Phe
 1060 1065 1070
 Arg Ser Ser Lys Asn Arg Arg Lys His Glu Arg Lys Leu Phe Ser Leu
 1075 1080 1085
 Lys Pro Gly Asn Pro Phe Glu Asp Ile Ala Leu Ile Asp Ala Leu His
 1090 1095 1100
 Asn His Val Thr Lys Ile Ala Gln Gln Gln Gln Pro Val Arg Asp Thr
 1105 1110 1115 1120
 Cys Lys Ala Leu Leu Gln Leu Ala Asn Ala Ala Asp Ala Asp Pro Leu
 1125 1130 1135
 Ala Ala Ala Leu Gln Arg Glu Phe Lys Thr Leu Leu Gln Ala Val Asp
 1140 1145 1150
 Ala Ala Leu Asp Glu Ile Trp Thr Pro Glu Leu Arg Gly Asn Gly Leu
 1155 1160 1165
 Met Ala Asp His Leu Thr Gly Pro Asn Val Asp Tyr Leu Ala Leu Gln
 1170 1175 1180
 Lys Glu Gln Arg Tyr Ala Leu Leu Ser Pro Leu Lys Arg Phe Lys Pro
 1185 1190 1195 1200
 Gln Leu Ile Met Met Asp Trp Gln His Glu Ile Leu Gln
 1205 1210

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 <211> 1349
 <212> PRT
 <213> *Saccharomyces cerevisiae*

<400> 7

Met Val Glu His Asp Lys Ser Gly Ser Lys Arg Gln Glu Leu Arg Ser
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Asn Met Arg Asn Leu Ile Thr Leu Asn Lys Gly Lys Phe Lys Pro Thr
20 25 30
Ala Ser Thr Ala Glu Gly Asp Glu Asp Asp Leu Ser Phe Thr Leu Leu
35 40 45
Asp Ser Val Phe Asp Thr Leu Ser Asp Ser Ile Thr Cys Val Leu Gly
50 55 60
Ser Thr Asp Ile Gly Ala Ile Glu Val Gln Gln Phe Met Lys Asp Gly
65 70 75 80
Ser Arg Asn Val Leu Ala Ser Phe Asn Ile Gln Thr Phe Asp Asp Lys
85 90 95
Leu Leu Ser Phe Val His Phe Ala Asp Ile Asn Gln Leu Val Phe Val
100 105 110
Phe Glu Gln Gly Asp Ile Ile Thr Ala Thr Tyr Asp Pro Val Ser Leu
115 120 125
Asp Pro Ala Glu Thr Leu Ile Glu Ile Met Gly Thr Ile Asp Asn Gly
130 135 140
Ile Ala Ala Ala Gln Trp Ser Tyr Asp Glu Glu Thr Leu Ala Met Val
145 150 155 160
Thr Lys Asp Arg Asn Val Val Val Leu Ser Lys Leu Phe Glu Pro Ile
165 170 175
Ser Glu Tyr His Leu Glu Val Asp Asp Leu Lys Ile Ser Lys His Val
180 185 190
Thr Val Gly Trp Gly Lys Lys Glu Thr Gln Phe Arg Gly Lys Gly Ala
195 200 205
Arg Ala Met Glu Arg Glu Ala Leu Ala Ser Leu Lys Ala Ser Gly Leu
210 215 220
Val Gly Asn Gln Leu Arg Asp Pro Thr Met Pro Tyr Met Val Asp Thr
225 230 235 240
Gly Asp Val Thr Ala Leu Asp Ser His Glu Ile Thr Ile Ser Trp Arg
245 250 255
Gly Asp Cys Asp Tyr Phe Ala Val Ser Ser Val Glu Glu Val Pro Asp
260 265 270
Glu Asp Asp Glu Thr Lys Ser Ile Lys Arg Arg Ala Phe Arg Val Phe
275 280 285
Ser Arg Glu Gly Gln Leu Asp Ser Ala Ser Glu Pro Val Thr Gly Met
290 295 300
Glu His Gln Leu Ser Trp Lys Pro Gln Gly Ser Leu Ile Ala Ser Ile
305 310 315 320
Gln Arg Lys Thr Asp Leu Gly Glu Glu Asp Ser Val Asp Val Ile Phe
325 330 335
Phe Glu Arg Asn Gly Leu Arg His Gly Glu Phe Asp Thr Arg Leu Pro

340					345					350					
Leu	Asp	Glu	Lys	Val	Glu	Ser	Val	Cys	Trp	Asn	Ser	Asn	Ser	Glu	Ala
		355					360					365			
Leu	Ala	Val	Val	Leu	Ala	Asn	Arg	Ile	Gln	Leu	Trp	Thr	Ser	Lys	Asn
	370					375					380				
Tyr	His	Trp	Tyr	Leu	Lys	Gln	Glu	Leu	Tyr	Ala	Ser	Asp	Ile	Ser	Tyr
	385					390					395				400
Val	Lys	Trp	His	Pro	Glu	Lys	Asp	Phe	Thr	Leu	Met	Phe	Ser	Asp	Ala
				405					410					415	
Gly	Phe	Ile	Asn	Ile	Val	Asp	Phe	Ala	Tyr	Lys	Met	Ala	Gln	Gly	Pro
			420					425					430		
Thr	Leu	Glu	Pro	Phe	Asp	Asn	Gly	Thr	Ser	Leu	Val	Val	Asp	Gly	Arg
		435					440					445			
Thr	Val	Asn	Ile	Thr	Pro	Leu	Ala	Leu	Ala	Asn	Val	Pro	Pro	Pro	Met
	450					455					460				
Tyr	Tyr	Arg	Asp	Phe	Glu	Thr	Pro	Gly	Asn	Val	Leu	Asp	Val	Ala	Cys
	465					470					475				480
Ser	Phe	Ser	Asn	Glu	Ile	Tyr	Ala	Ala	Ile	Asn	Lys	Asp	Val	Leu	Ile
				485					490					495	
Phe	Ala	Ala	Val	Pro	Ser	Ile	Glu	Glu	Met	Lys	Lys	Gly	Lys	His	Pro
			500					505					510		
Ser	Ile	Val	Cys	Glu	Phe	Pro	Lys	Ser	Glu	Phe	Thr	Ser	Glu	Val	Asp
		515					520					525			
Ser	Leu	Arg	Gln	Val	Ala	Phe	Ile	Asn	Asp	Ser	Ile	Val	Gly	Val	Leu
	530					535					540				
Leu	Asp	Thr	Asp	Asn	Leu	Ser	Arg	Ile	Ala	Leu	Leu	Asp	Ile	Gln	Asp
	545					550					555				560
Ile	Thr	Gln	Pro	Thr	Leu	Ile	Thr	Ile	Val	Glu	Val	Tyr	Asp	Lys	Ile
				565					570					575	
Val	Leu	Leu	Ser	Ser	Asp	Phe	Asp	Tyr	Asn	His	Leu	Val	Tyr	Glu	Thr
			580					585					590		
Arg	Asp	Gly	Thr	Val	Cys	Gln	Leu	Asp	Ala	Glu	Gly	Gln	Leu	Met	Glu
		595					600					605			
Ile	Thr	Lys	Phe	Pro	Gln	Leu	Val	Arg	Asp	Phe	Arg	Val	Lys	Arg	Val
	610					615					620				
His	Asn	Thr	Ser	Ala	Glu	Asp	Asp	Asp	Asn	Trp	Ser	Ala	Glu	Ser	Ser
	625					630					635				640
Glu	Leu	Val	Ala	Phe	Gly	Ile	Thr	Asn	Asn	Gly	Lys	Leu	Phe	Ala	Asn
				645					650					655	
Gln	Val	Leu	Leu	Ala	Ser	Ala	Val	Thr	Ser	Leu	Glu	Ile	Thr	Asp	Ser
			660					665					670		
Phe	Leu	Leu	Phe	Thr	Thr	Ala	Gln	His	Asn	Leu	Gln	Phe	Val	His	Leu
		675					680					685			

Asn Ser Thr Asp Phe Lys Pro Leu Pro Leu Val Glu Glu Gly Val Glu
 690 695 700
 Asp Glu Arg Val Arg Ala Ile Glu Arg Gly Ser Ile Leu Val Ser Val
 705 710 715 720
 Ile Pro Ser Lys Arg Ser Val Val Leu Gln Ala Thr Arg Gly Asn Leu
 725 730 735
 Glu Thr Ile Tyr Pro Arg Ile Met Val Leu Ala Glu Val Arg Lys Asn
 740 745 750
 Ile Met Ala Lys Arg Tyr Lys Glu Ala Phe Ile Val Cys Arg Thr His
 755 760 765
 Arg Ile Asn Leu Asp Ile Leu His Asp Tyr Ala Pro Glu Leu Phe Ile
 770 775 780
 Glu Asn Leu Glu Val Phe Ile Asn Gln Ile Gly Arg Val Asp Tyr Leu
 785 790 795 800
 Asn Leu Phe Ile Ser Cys Leu Ser Glu Asp Asp Val Thr Lys Thr Lys
 805 810 815
 Tyr Lys Glu Thr Leu Tyr Ser Gly Ile Ser Lys Ser Phe Gly Met Glu
 820 825 830
 Pro Ala Pro Leu Thr Glu Met Gln Ile Tyr Met Lys Lys Lys Met Phe
 835 840 845
 Asp Pro Lys Thr Ser Lys Val Asn Lys Ile Cys Asp Ala Val Leu Asn
 850 855 860
 Val Leu Leu Ser Asn Pro Glu Tyr Lys Lys Lys Tyr Leu Gln Thr Ile
 865 870 875 880
 Ile Thr Ala Tyr Ala Ser Gln Asn Pro Gln Asn Leu Ser Ala Ala Leu
 885 890 895
 Lys Leu Ile Ser Glu Leu Glu Asn Ser Glu Glu Lys Asp Ser Cys Val
 900 905 910
 Thr Tyr Leu Cys Phe Leu Gln Asp Val Asn Val Val Tyr Lys Ser Ala
 915 920 925
 Leu Ser Leu Tyr Asp Val Ser Leu Ala Leu Leu Val Ala Gln Lys Ser
 930 935 940
 Gln Met Asp Pro Arg Glu Tyr Leu Pro Phe Leu Gln Glu Leu Gln Asp
 945 950 955 960
 Asn Glu Pro Leu Arg Arg Lys Phe Leu Ile Asp Asp Tyr Leu Gly Asn
 965 970 975
 Tyr Glu Lys Ala Leu Glu His Leu Ser Glu Ile Asp Lys Asp Gly Asn
 980 985 990
 Val Ser Glu Glu Val Ile Asp Tyr Val Glu Ser His Asp Leu Tyr Lys
 995 1000 1005
 His Gly Leu Ala Leu Tyr Arg Tyr Asp Ser Glu Lys Gln Asn Val Ile
 1010 1015 1020

Tyr Asn Ile Tyr Ala Lys His Leu Ser Ser Asn Gln Met Tyr Thr Asp
 1025 1030 1035 1040
 Ala Ala Val Ala Tyr Glu Met Leu Gly Lys Leu Lys Glu Ala Met Gly
 1045 1050 1055
 Ala Tyr Gln Ser Ala Lys Arg Trp Arg Glu Ala Met Ser Ile Ala Val
 1060 1065 1070
 Gln Lys Phe Pro Glu Glu Val Glu Ser Val Ala Glu Glu Leu Ile Ser
 1075 1080 1085
 Ser Leu Thr Phe Glu His Arg Tyr Val Asp Ala Ala Asp Ile Gln Leu
 1090 1095 1100
 Glu Tyr Leu Asp Asn Val Lys Glu Ala Val Ala Leu Tyr Cys Lys Ala
 1105 1110 1115 1120
 Tyr Arg Tyr Asp Ile Ala Ser Leu Val Ala Ile Lys Ala Lys Lys Asp
 1125 1130 1135
 Glu Leu Leu Glu Glu Val Val Asp Pro Gly Leu Gly Glu Gly Phe Gly
 1140 1145 1150
 Ile Ile Ala Glu Leu Leu Ala Asp Cys Lys Gly Gln Ile Asn Ser Gln
 1155 1160 1165
 Leu Arg Arg Leu Arg Glu Leu Arg Ala Lys Lys Glu Glu Asn Pro Tyr
 1170 1175 1180
 Ala Phe Tyr Gly Gln Glu Thr Glu Gln Ala Asp Asp Val Ser Val Ala
 1185 1190 1195 1200
 Pro Ser Glu Thr Ser Thr Gln Glu Ser Phe Phe Thr Arg Tyr Thr Gly
 1205 1210 1215
 Lys Thr Gly Gly Thr Ala Lys Thr Gly Ala Ser Arg Arg Thr Ala Lys
 1220 1225 1230
 Asn Lys Arg Arg Glu Glu Arg Lys Arg Ala Arg Gly Lys Lys Gly Thr
 1235 1240 1245
 Ile Tyr Glu Glu Glu Tyr Leu Val Gln Ser Val Gly Arg Leu Ile Glu
 1250 1255 1260
 Arg Leu Asn Gln Thr Lys Pro Asp Ala Val Arg Val Val Glu Gly Leu
 1265 1270 1275 1280
 Cys Arg Arg Asn Met Arg Glu Gln Ala His Gln Ile Gln Lys Asn Phe
 1285 1290 1295
 Val Glu Val Leu Asp Leu Leu Lys Ala Asn Val Lys Glu Ile Tyr Ser
 1300 1305 1310
 Ile Ser Glu Lys Asp Arg Glu Arg Val Asn Glu Asn Gly Glu Val Tyr
 1315 1320 1325
 Tyr Ile Pro Glu Ile Pro Val Pro Glu Ile His Asp Phe Pro Lys Ser
 1330 1335 1340
 His Ile Val Asp Phe
 1345

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 <211> 1319
 <212> PRT
 <213> Arabidopsis thaliana

<400> 8
 Met Lys Asn Leu Lys Leu Phe Ser Glu Val Pro Gln Asn Ile Gln Leu
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 His Ser Thr Glu Glu Val Val Gln Phe Ala Ala Thr Asp Ile Asp Gln
 20 25 30
 Ser Arg Leu Phe Phe Ala Ser Ser Ala Asn Phe Val Tyr Ala Leu Gln
 35 40 45
 Leu Ser Ser Phe Gln Asn Glu Ser Ala Gly Ala Lys Ser Ala Met Pro
 50 55 60
 Val Glu Val Cys Ser Ile Asp Ile Glu Pro Gly Asp Phe Ile Thr Ala
 65 70 75 80
 Phe Asp Tyr Leu Ala Glu Lys Glu Ser Leu Leu Ile Gly Thr Ser His
 85 90 95
 Gly Leu Leu Leu Val His Asn Val Glu Ser Asp Val Thr Glu Leu Val
 100 105 110
 Gly Asn Ile Glu Gly Gly Val Lys Cys Ile Ser Pro Asn Pro Thr Gly
 115 120 125
 Asp Leu Leu Gly Leu Ile Thr Gly Leu Gly Gln Leu Ile Val Met Thr
 130 135 140
 Tyr Asp Trp Ala Leu Met Tyr Glu Lys Ala Leu Gly Glu Val Pro Glu
 145 150 155 160
 Gly Gly Tyr Val Arg Glu Thr Asn Asp Leu Ser Val Asn Cys Gly Gly
 165 170 175
 Ile Ser Ile Ser Trp Arg Gly Asp Gly Lys Tyr Phe Ala Thr Met Gly
 180 185 190
 Glu Val Tyr Glu Ser Gly Cys Met Ser Lys Lys Ile Lys Ile Trp Glu
 195 200 205
 Ser Asp Ser Gly Ala Leu Gln Ser Ser Ser Glu Thr Lys Glu Phe Thr
 210 215 220
 Gln Gly Ile Leu Glu Trp Met Pro Ser Gly Ala Lys Ile Ala Ala Val
 225 230 235 240
 Tyr Lys Arg Lys Ser Asp Asp Ser Ser Pro Ser Ile Ala Phe Phe Glu
 245 250 255
 Arg Asn Gly Leu Glu Arg Ser Ser Phe Arg Ile Gly Glu Pro Glu Asp
 260 265 270
 Ala Thr Glu Ser Cys Glu Asn Leu Lys Trp Asn Ser Ala Ser Asp Leu
 275 280 285
 Leu Ala Gly Val Val Ser Cys Lys Thr Tyr Asp Ala Ile Arg Val Trp
 290 295 300
 Phe Phe Ser Asn Asn His Trp Tyr Leu Lys Gln Glu Ile Arg Tyr Pro
 305 310 315 320

Arg Glu Ala Gly Val Thr Val Met Trp Asp Pro Thr Lys Pro Leu Gln
 325 330 335
 Leu Ile Cys Trp Thr Leu Ser Gly Gln Val Ser Val Arg His Phe Met
 340 345 350
 Trp Val Thr Ala Val Met Glu Asp Ser Thr Ala Phe Val Ile Asp Asn
 355 360 365
 Ser Lys Ile Leu Val Thr Pro Leu Ser Leu Ser Leu Met Pro Pro Pro
 370 375 380
 Met Tyr Leu Phe Ser Leu Ser Phe Ser Ser Ala Val Arg Asp Ile Ala
 385 390 395 400
 Tyr Tyr Ser Arg Asn Ser Lys Asn Cys Leu Ala Val Phe Leu Ser Asp
 405 410 415
 Gly Asn Leu Ser Phe Val Glu Phe Pro Ala Pro Asn Thr Trp Glu Asp
 420 425 430
 Leu Glu Gly Lys Asp Phe Ser Val Glu Ile Ser Asp Cys Lys Thr Ala
 435 440 445
 Leu Gly Ser Phe Val His Leu Leu Trp Leu Asp Val His Ser Leu Leu
 450 455 460
 Cys Val Ser Ala Tyr Gly Ser Ser His Asn Lys Cys Leu Ser Ser Gly
 465 470 475 480
 Gly Tyr Asp Thr Glu Leu His Gly Ser Tyr Leu Gln Glu Val Glu Val
 485 490 495
 Val Cys His Glu Asp His Val Pro Asp Gln Val Thr Cys Ser Gly Phe
 500 505 510
 Lys Ala Ser Ile Thr Phe Gln Thr Leu Leu Glu Ser Pro Val Leu Ala
 515 520 525
 Leu Ala Trp Asn Pro Ser Lys Arg Asp Ser Ala Phe Val Glu Phe Glu
 530 535 540
 Gly Gly Lys Val Leu Gly Tyr Ala Ser Arg Ser Glu Ile Met Glu Thr
 545 550 555 560
 Arg Ser Ser Asp Asp Ser Val Cys Phe Pro Ser Thr Cys Pro Trp Val
 565 570 575
 Arg Val Ala Gln Val Asp Ala Ser Gly Val His Lys Pro Leu Ile Cys
 580 585 590
 Gly Leu Asp Asp Met Gly Arg Leu Ser Ile Asn Gly Lys Asn Leu Cys
 595 600 605
 Asn Asn Cys Ser Ser Phe Ser Phe Tyr Ser Glu Leu Ala Asn Glu Val
 610 615 620
 Val Thr His Leu Ile Ile Leu Thr Lys Gln Asp Phe Leu Phe Ile Val
 625 630 635 640
 Asp Thr Lys Asp Val Leu Asn Gly Asp Val Ala Leu Gly Asn Val Phe
 645 650 655

Phe Val Ile Asp Gly Arg Arg Arg Asp Glu Glu Asn Met Ser Tyr Val
660 665 670
Asn Ile Trp Glu Arg Gly Ala Lys Val Ile Gly Val Leu Asn Gly Asp
675 680 685
Glu Ala Ala Val Ile Leu Gln Thr Met Arg Gly Asn Leu Glu Cys Ile
690 695 700
Tyr Pro Arg Lys Leu Val Leu Ser Ser Ile Thr Asn Ala Leu Ala Gln
705 710 715 720
Gln Arg Phe Lys Asp Ala Phe Asn Leu Val Arg Arg His Arg Ile Asp
725 730 735
Phe Asn Val Ile Val Asp Leu Tyr Gly Trp Gln Ala Phe Leu Gln Ser
740 745 750
Ala Val Ala Phe Val Glu Gln Val Asn Asn Leu Asn His Val Thr Glu
755 760 765
Phe Val Cys Ala Met Lys Asn Glu Asp Val Thr Glu Thr Leu Tyr Lys
770 775 780
Lys Phe Ser Phe Ser Lys Lys Gly Asp Glu Val Phe Arg Val Lys Asp
785 790 795 800
Ser Cys Ser Asn Lys Val Ser Ser Val Leu Gln Ala Ile Arg Lys Ala
805 810 815
Leu Glu Glu His Ile Pro Glu Ser Pro Ser Arg Glu Leu Cys Ile Leu
820 825 830
Thr Thr Leu Ala Arg Ser Asp Pro Pro Ala Ile Glu Glu Ser Leu Leu
835 840 845
Arg Ile Lys Ser Val Arg Glu Met Glu Leu Leu Asn Ser Ser Asp Asp
850 855 860
Ile Arg Lys Lys Ser Cys Pro Ser Ala Glu Glu Ala Leu Lys His Leu
865 870 875 880
Leu Trp Leu Leu Asp Ser Glu Ala Val Phe Glu Ala Ala Leu Gly Leu
885 890 895
Tyr Asp Leu Asn Leu Ala Ala Ile Val Ala Leu Asn Ser Gln Arg Asp
900 905 910
Pro Lys Glu Phe Leu Pro Tyr Leu Gln Glu Leu Glu Lys Met Pro Glu
915 920 925
Ser Leu Met His Phe Lys Ile Asp Ile Lys Leu Gln Arg Phe Asp Ser
930 935 940
Ala Leu Arg Asn Ile Val Ser Ala Gly Val Gly Tyr Phe Pro Asp Cys
945 950 955 960
Met Asn Leu Ile Lys Lys Asn Pro Gln Leu Phe Pro Leu Gly Leu Leu
965 970 975
Leu Ile Thr Asp Pro Glu Lys Lys Leu Val Val Leu Glu Ala Trp Ala
980 985 990

Asp His Leu Ile Asp Glu Lys Arg Phe Glu Asp Ala Ala Thr Thr Tyr
 995 1000 1005
 Leu Cys Cys Cys Lys Leu Glu Lys Ala Ser Lys Ala Tyr Arg Glu Cys
 1010 1015 1020
 Gly Asp Trp Ser Gly Val Leu Arg Val Gly Ala Leu Met Lys Leu Gly
 1025 1030 1035 1040
 Lys Asp Glu Ile Leu Lys Leu Ala Tyr Glu Leu Cys Glu Glu Val Asn
 1045 1050 1055
 Ala Leu Gly Lys Pro Ala Glu Ala Ala Lys Ile Ala Leu Glu Tyr Cys
 1060 1065 1070
 Ser Asp Ile Ser Gly Gly Ile Ser Leu Leu Ile Asn Ala Arg Glu Trp
 1075 1080 1085
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His Trp Arg Trp Asp Gly Glu Ile Val Ala Val Ser Phe Tyr Ser Ser
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